

Appln. No.: 09/964,852
Response dated March 5, 2009
Responsive to Office Action of December 24, 2008

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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method comprising:
receiving at a gateway first transmissions via a digital broadcast network,
processing the first transmissions at the gateway resulting in a wireless digitally modulated local broadband second transmission, including de-multiplexing a data stream of each of the first transmissions, and re-multiplexing at least a part of the data stream of the first transmissions with data stored locally at the gateway,
~~re-transmitting~~transmitting from the gateway the ~~received first transmissions as~~
the wireless digitally modulated local broadband second transmission to a terminal,
subsequent to ~~re-transmitting~~transmitting the wireless digitally modulated local
~~broadband second transmission~~, receiving at the gateway a message indicating that the terminal no longer requires the first transmissions, and
removing the first transmissions from subsequent transmissions of the wireless
digitally modulated local broadband second transmission responsive to the message.
2. (Canceled).
3. (Previously Presented) A method according to claim 1, wherein the locally stored data is one of MP3 music, multimedia messages, multimedia album, picture, album, movies.
4. (Previously Presented) A method according to claim 1, further comprising receiving a request for the locally stored data via a wireless connection from the terminal.
5. (Previously Presented) A method according to claim 1, wherein the processing further comprises scrambling the data stream of the first transmissions resulting in said

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wirelessly digitally modulated local broadband second transmission, for descrambling by the terminal.

6. (Previously Presented) A method according to claim 5, further comprising before the scrambling, de-scrambling the data stream of the first transmissions.

7. (Previously Presented) A method according to claim 6, wherein the data stream is de-scrambled using a password.

8. (Original) A method according to claim 7, wherein the password is given by a remote controller.

9. (Previously Presented) A method according to claim 7, wherein the password comprises a customer password which is entered at the gateway and the terminal.

10. (Previously Presented) A method according to claim 1, wherein the first transmissions are saved temporarily in a memory of the gateway.

11. (Original) A method according to claim 1, wherein the second transmission is transmitted at a frequency allocated to free use.

12. (Previously Presented) A method according to claim 11, wherein the frequency allocated to free use is an Industrial-Scientific-Medical (ISM) frequency.

13. (Previously Presented) A method according to claim 1, wherein at least one of the first transmissions, which is addressed to a certain terminal, which accordingly receives the second transmission, is scrambled at the gateway.

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14. (Previously Presented) A method according to claim 13, wherein the at least one of the first transmissions which is scrambled at the gateway can be opened as a pay service at the certain terminal.

15. (Original) A method according to claim 1, wherein the modulation used in the second transmission is one of OFDM, QAM, 8-VSB, QPSK.

16. (Previously Presented) A method according to claim 1, further comprising receiving from the terminal a request for a given first transmission over a separate wireless link.

17. (Previously Presented) A method according to claim 1, further comprising receiving from the terminal a request for a data stream, which is transmitted via the wireless digitally modulated local broadband second transmission over a same wireless link over which the second transmission is transmitted.

18. (Currently Amended) An apparatus comprising:
a processor; and
a memory configured to store computer readable instructions that, when executed by the processor, cause the apparatus to:
receive first transmissions from a digital broadcast network,
process the first transmissions resulting in a wireless digitally modulated local broadband second transmission, including de-multiplexing a data stream of each of the first transmissions, and re-multiplexing at least a part of the data stream of the first transmissions with data stored at the apparatus,
~~re-transmit~~ transmit the received first transmissions as the wireless digitally
modulated local broadband second transmission to a terminal,
~~subsequent to re-transmitting~~ transmitting the wireless digitally modulated local
broadband second transmission, receiving at the apparatus a message indicating that the terminal no longer requires the first transmissions, and

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removing the first transmissions from subsequent transmissions of the wireless
digitally modulated local broadband second transmission responsive to the message.

19. (Canceled).

20. (Previously Presented) An apparatus according to claim 18, wherein the computer readable instructions further comprise at least one instruction that when executed by the processor causes the apparatus to save the first transmissions temporarily at the apparatus.

21. (Currently Amended) An apparatus according to claim 18, wherein the computer readable instructions that, when executed by the processor, cause the apparatus to ~~re-transmit~~transmit the received first transmissions as the wireless digitally modulated local broadband second transmission are configured such that the ~~re-transmission~~transmission of the wireless digitally modulated local broadband second transmission takes place at a frequency allocated to free use, and wherein the frequency allocated to free use comprises a frequency allocated to an Industrial-Scientific-Medical (ISM) use.

22. (Previously Presented) An apparatus according to claim 18, wherein the computer readable instructions further comprise at least one instruction that when executed by the processor causes the apparatus to descramble the first transmissions.

23. (Previously Presented) An apparatus according to claim 18, wherein the apparatus further comprises a receiver configured to receive the first transmissions, a demodulator configured to demodulate the received first transmissions, and a descrambler configured to descramble the demodulated first transmissions.

24. (Previously Presented) An apparatus according to claim 18, wherein the apparatus further comprises a MPEG-2 analog-to-digital converter configured to receive locally available first transmissions.

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25. (Previously Presented) An apparatus according to claim 23, wherein the apparatus further comprises:

- a multiplexer configured to receive a descrambled first transmission from the descrambler and a locally available first transmission from a MPEG-2 analog-to-digital converter, wherein the multiplexer is configured to generate a multiplexed data stream from the descrambled first transmission from the descrambler and the locally available first transmission,

- a scrambler configured to scramble the multiplexed data stream,

- a modulator configured to receive the scrambled data stream and produce a modulated signal,

- a mixer and a local oscillator in connection therewith configured to convert the modulated signal into a desired Industrial-Scientific-Medical (ISM) frequency, and

- an amplifier configured to amplify the ISM frequency signal as the second transmission to be transmitted.

26. (Previously Presented) An apparatus according to claim 25, wherein the modulator is one of a OFDM modulator, a QAM modulator, a 8-VSB modulator, a QPSK modulator.

27. (Previously Presented) An apparatus according to claim 18, wherein the computer readable instructions further include at least one instruction that, when executed by the processor, causes the apparatus to:

- connect to an external communications network,

- connect to a local signal source, and

- establish a wireless link between the apparatus and the terminal.

28. (Previously Presented) An apparatus according to claim 27, wherein the wireless link between the apparatus and the terminal is realized using technology complying with

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one of the following systems: GSM, GPRS, DECT, UMTS, WLAN, HomeRF, Bluetooth.

29. (Previously Presented) An apparatus comprising:
a receiver configured to receive a wireless digitally modulated broadband second transmission resulting from a first transmission at a frequency allocated to free use,
a demodulator configured to demodulate the received second transmission,
a demultiplexer configured to demultiplex the received second transmission, and
a descrambler configured to descramble the data when the data is scrambled,
wherein a portion of a de-multiplexed version of the first transmission is re-multiplexed with data not included in the first transmission to form the wireless digitally modulated broadband second transmission,
a transmitter configured to transmit a message indicating that the apparatus no longer requires the first transmission in the wireless digitally modulated broadband second transmission.
30. (Previously Presented) An apparatus according to claim 29, wherein the frequency allocated to free use is a frequency allocated to Industrial-Scientific-Medical (ISM) use.
31. (Previously Presented) An apparatus according to claim 29, wherein the apparatus is configured to provide a wireless link between a gateway and the apparatus.
32. (Previously Presented) An apparatus according to claim 31, wherein the wireless link between the gateway and the apparatus is arranged so as to be realized using technology complying with one of the following systems: GSM, GPRS, DECT, UMTS, IEEE 802.11, Bluetooth, HomeRF.

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33. (Previously Presented) An apparatus according to claim 31, wherein the apparatus is configured to request the first transmission, which is transmitted via the wireless digitally modulated second transmission, via the wireless link.
34. (Canceled).
35. (Canceled).
36. (Previously Presented) A method according to claim 1, wherein the method further comprises establishing a two-way wireless link.
37. (Previously Presented) An apparatus according to claim 18, wherein the computer readable instructions further include instructions that, when executed by the processor, cause the apparatus to:
- establish a communications connection between the apparatus and a terminal via a wireless link, and
 - receive a request via the communications connection from the terminal for at least one of the first transmissions,
 - wherein the wireless digitally modulated local broadband second transmission includes the at least one of the first transmissions requested by the terminal.
38. (Previously Presented) An apparatus according to claim 31, wherein the apparatus is configured to receive a directive via the wireless link, said directive directing the apparatus to function as an alarm/display device.
39. (Previously Presented) A method according to claim 1, wherein the second transmission transmitted by the gateway terminal comprises at least one of the following: video image, sound, data, control information.
40. (Canceled).

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41. (Currently Amended) One or more computer storage media storing computer readable instructions that, when executed by a processor, cause an apparatus to:

receive first transmissions from a digital broadcast network,

process the first transmissions resulting in a wireless digitally modulated local broadband second transmission, including de-multiplexing a data stream of each of the first transmissions, and re-multiplexing at least a part of the data stream of the first transmissions with data stored at the apparatus,

~~re-transmit~~transmit the received first transmissions as the wireless digitally modulated local broadband second transmission to a terminal,

~~subsequent to re-transmitting~~transmitting the wireless digitally modulated local broadband second transmission, receiving at the apparatus a message indicating that the terminal no longer requires the first transmissions, and

removing the first transmissions from subsequent transmissions of the wireless digitally modulated local broadband second transmission responsive to the message.

42. (Previously Presented) The method of claim 1, wherein the first transmissions comprise a plurality of multiplexed streams, each multiplexed stream comprising a plurality of discrete services, and wherein the re-multiplexing comprises re-multiplexing at least one service de-multiplexed from a first multiplexed stream of the first transmissions with at least one service de-multiplexed from a second multiplexed stream of the first transmissions.

43. (Previously Presented) An apparatus comprising:

a processor; and

a memory having stored thereon computer readable instructions that, when executed by the processor, cause the apparatus to perform:

receiving first transmissions, the first transmissions including a plurality of multiplexed streams, wherein each multiplexed stream includes a plurality of discrete services,

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de-multiplexing a first one of the plurality of multiplexed streams to obtain at least one first discrete service;

de-multiplexing a second one of the plurality of multiplexed streams to obtain at least one second discrete service; and

generating a wireless digitally modulated local broadband transmission by re-multiplexing the at least one first discrete service with the at least one second discrete service.

44. (Previously Presented) The apparatus of claim 43, wherein the computer readable instructions include at least one instruction that, when executed by the processor, causes the apparatus to perform:

transmitting from the apparatus the wireless digitally modulated local broadband transmission to a terminal.

45. (Previously Presented) The apparatus of claim 43, wherein the computer readable instructions include at least one instruction that, when executed by the processor, causes the apparatus to perform:

receiving from a terminal a selection of at least one of the at least one first discrete service and the at least one second discrete service; and
performing the re-multiplexing based on the selection.